

REMARKS

Claims 1-3, 7-14, 17-37, 41-45 and 47 remain pending after present cancellations. Claims 4-6, 15-16, 38-40, 46 and 48 have been cancelled. No new matter has been added.

The Office rejected Claims 1, 4, 5, 8-10, 12-13, 15, 18-23, 30-38, and 46-48 under 35 U.S.C. 102(b) as being anticipated by Takeyasu, et al. (Patent No. 4,255,762 A); Claims 2-3, 6-7, 11, 14, 16-17, 26-29, and 39-40 under 35 U.S.C. 103(a) as being unpatentable over Takeyasu, et al. (Patent No. 4,255,762 A), in view of Marx (Patent No. 4,974,168 A); and Claims 24-25 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeyasu, et al. (Patent No. 4,255,762 A), in view of Ng, et al. (Patent No. 7,460,691 B2).

The undersigned respectfully requests consideration of the arguments presented herein and withdrawal of the present rejections.

Rejection of Claims 1, 4, 5, 8-10, 12-13, 15, 18-23, 30-38, and 46-48 under 35 U.S.C. 102(b) as being anticipated by Takeyasu, et al. (Patent No. 4,255,762 A).

The non-cancelled independent claims have been amended to include limitations not found in Takeyasu as admitted by the Office. Accordingly, these claims and Takeyasu are addressed below.

Rejection of Claims 2-3, 6-7, 11, 14, 16-17, 26-29, and 39-40 under 35 U.S.C. 103(a) as being unpatentable over Takeyasu, et al. (Patent No. 4,255,762 A), in view of Marx (Patent No. 4,974,168 A).

The independent claims 1 and 12 have been amended as set forth above to recite limitations admittedly not recited in the Takeyasu reference. Independent claims 1 and 12 have various limitations that the undersigned believes are not taught by either Takeyasu or Marx. Importantly, all claims are directed to an inspection system and process that essentially requires use of a series of control commands that were developed based on a first inspection of a surface of interest in order to perform a second inspection of the same surface of interest. More specifically, the commands developed based on a first inspection are used to control at least one camera to obtain a certain series of pictures of the surface of interest in order to obtain the pictures of the same locations of the surface of interest as were taken during the first inspection.

The Office points to the Abstract of Takeyasu as teaching the limitation generally directed to providing a sequence of camera control parameters generated from first inspection data for taking a second inspection data. The Abstract states:

Apparatus for inspecting pipes in a plant, comprising an elongate inspection head portion which is provided with an optical system for receiving an inspection image by approaching an inner surface of a pipe being an object to-be-inspected; at least one proximity sensor which is disposed in the inspection head portion in order to detect a relative distance between the inspection head portion and the proximate object; a positioning mechanism which consists of a plurality of driving shafts for advancing or retreating, rotating, and revolving the inspection head portion; a control device which is capable of programmed operation and which drives and controls the positioning mechanism in a predetermined operation sequence programmed in advance; a data storage device which stores positional data of the respective driving shafts of the positioning mechanism; and an image processor which is disposed at a position remote from the inspection head portion and which reconstructs the inspection image from video signals; the control device controlling the positioning mechanism on the basis of an output signal from the proximity sensor, so that the inspection head portion can be moved and controlled from an initially-set position outside the pipe towards an inspection position of the pipe without contacting with the object to-be-inspected.

The undersigned fails to see where this discloses the claimed limitations. Neither programmed operation of an inspection head nor movement of the inspection head from a pre-set position in response to feedback from a position sensor teaches the claimed limitations. The claims are directed to providing a sequence of camera control parameters derived from first inspection data to take second inspection data --- there is nothing in the Abstract that discloses this limitation. Further, the claims also require that the second inspection data result from a sequential series of images of the surface taken in response to the control parameters, wherein the images are taken at different camera poses, again, as dictated by the control parameters. Clearly, this is not taught by Takeyasu. The Office cites to Marx as follows (and almost verbatim for claim 15):

Re claim 6, Takeyasu discloses a majority of the features of claim 6, as discussed above in claim 5, but Takeyasu does not explicitly disclose that the act of acquiring an inspection sequence of images includes an act of acquiring at least one image from each pose of the camera defined by the plurality of sets of camera control parameters. However, Marx indicates that video images are captured at several angular positions and indexed accordingly with position information (Marx: column 5, lines 13-44). Since both Takeyasu and Marx relate to performing inspections of enclosed areas, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the information correlation of Marx with the inspection system of Takeyasu in order to provide a system with increased stability of data storage, improved display of data without reduction in video image quality, and enhanced ability to monitor and display additional functions (Marx: column 2, lines 7-14).

Other than describing generally the use of a camera and the ability for the camera angle to be changed, there is nothing in Marx that cures the deficiencies of Takeyasu, namely, generating camera control signals for taking sequential images of the surface based on data retrieved from a first scan of the surface.

The undersigned submits that the combination of Takeyasu and Marx fails to teach or suggest the claimed limitations for at least the reasons set forth herein and respectfully requests that the present rejections be withdrawn.

Rejection of Claims 24-25 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeyasu, et al. (Patent No. 4,255,762 A), in view of Ng, et al. (Patent No. 7,460,691 B2).

The undersigned submits that Ng fails to cure the deficiencies of the Takeyasu and for the reasons set forth above, these claims are allowable over the cited prior art.

CONCLUSION

The undersigned representative respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution might be advanced by discussing the application with the undersigned representative, in person or over the telephone, we welcome the opportunity to do so. In addition, if any additional fees are required in connection with the filing of this response, the Commissioner is hereby authorized to charge the same to Deposit Account 50-4402.

Respectfully submitted,

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